

**4. LOCAL/DX switch:** For most uses, the DX or long distance setting is used for most sensitive condition for the receiver. However, when operating the **AE 300** in the presence of very strong signals such as those from TV stations or FM broadcast transmitters, some interference effects may be apparent. This can take the form of increase levels of background noise, or spitting noises occasionally heard on peaks of modulation from the interfering source, or strange spurious signals generated by intermodulation between the strong signals. The cure of most of these effects is the use of the ATT switch in the LOCAL position.

**5. LIGHT :** Press to illuminate the display and press again to extinguish display lamp.

**6. BFO:** Toggles between AM or sideband modes, NOTE: BFO for SSB (single Side Band) can only be activated whilst in AM mode. It does not affect FM reception.

**7. EAR:** This is used for connection of either the earphone supplied, or an external headset or a loudspeaker. When a plug is inserted into this jack, the internal speaker of the **AE 300** is automatically disconnected. The impedance of the external load should be 8 ohms or greater.

**8. ANT:** This is a standard BNC high frequency connector mounted on the top panel of receiver.

### Front Panel and Right-hand side of the receiver

**CHG:** This concentric socket is mounted on the side of the case and is used for connection of the mains charger supplied, or the car's cigar lighter DC power cord supplied, or any suitable 11 - 16 volt DC supply.

**DISPLAY:** This provides comprehensive information for the users in easy to understand form.

### Keyboard controls

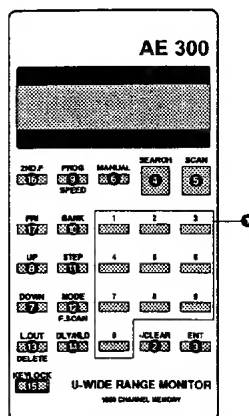
1. First of all we have the numerical keys from 0 to 9, plus the decimal point (.). These are used for entering frequency, frequency step size, memory channel number, bank number, and so on. The same keys are used in the bank select mode, in which case the number 0 to 9 correspond to the frequency bands listed in the operating paragraph of this handbook.

2. **CLEAR. (.):** Press once to enter a decimal point when entering frequency information. Press twice to clear an incorrect entry of the numbers.

3. **ENTER:** Used to enter frequency after selection by the keypad or to complete many memory changes or operations.

4. **SEARCH:** (Legend SEAR is shown on the display)  
Used to start the frequency search action of the receiver;  
also used to manually advance frequency after the search has stopped.

5. **SCAN:** (Legend SCAN is shown on the display)  
Used to start the memory scanning system of the receiver;  
also used to manually advance the memory channels when the scan has stopped.



6. **MANUAL:** (No legend is shown on the display)

Used to engage the manual mode of receiver control, that is when the user wishes to directly enter a frequency of interest into the receiver, or directly select any memory channel.

7. **Down :** Initially, the search or scan action is always from lower frequencies to higher, or lower memory channels to higher. If when searching or scanning, the down key is pressed, the search or scan stops, and the down arrow mark is shown on the display. Subsequent short press of the down key will step the scan or search downwards. If the down key is held pressed for more than about one seconds, the scan or search will re-start, but in the downwards direction.

8. **Up:** Reverse function of Down key.

9. **PROG:** Used in programming search frequencies and others. When **2nd F** key is pressed, this key can be used to change the scanning or searching speed faster.

10. **BANK:** Used to select the desired memory bank or search bank from 0 - 9 when scanning or searching.

11. **STEP:** Used when entering the desired frequency increments or steps, from 1KHz to 999KHz. For under 100KHz, the step can be programmed in multiplying 12.5KHz. For above 100KHz, integer only. Above 512MHz receiving frequencies, 5KHz is minimum frequency step. Frequency step can be programmed from numeric keys. Dial, Up and Down keys can be used to select 1.0KHz, 5.0KHz, 10.0KHz, 12.5KHz, 20KHz, 25KHz, 50KHz and 100KHz for quick programming.

12. **MODE:** To select W(wide)FM, narrow FM or AM as required. Press this key and then select by pressing either UP key or Down key. Dial can also be used to select receiving mode. Selected mode is displayed on LCD. When **2nd F** key is pressed, this key can be used to start free scan (automatically resume scanning or searching even after locking on to active signal in the duration of 2 second).

13. **LOCKOUT:** Press once to lockout the channel or frequency shown on the display and press again to restore such back to scanning or searching schedule. When **2nd F** Key is pressed, this can be used to delete a memory channel.

14. **DELAY/HOLD:** Press to change from DELAY to HOLD and back again sequentially in both search and scan mode. When "HOLD" is shown on the display, the scan or search stops on a busy channel and remains there even after the signal has gone off. When "DELAY" is shown on the display, the scan or each stops on a busy channel, but then automatically resumes the search or scan approximately 2 seconds after the signal has gone off.

15. **KEY LOCK:** Press this key to disable all keyboard function and dial function. Press again to restore all function back to normal. This button is used to prevent accidental miss-operating or changes of frequency when the receiver is being carried around but still in use.

16. **2ND. F:** Press this to use 2nd function of **PROG**, **MODE** and **L. OUT** keys as described above.

17. **PRI:** Used to program priority channel to check one of the 900 memory channels every 2 seconds for activity (bank 0 can not be set to the priority). If this channel is found to be busy the scanner will stop whatever it's doing and switch to that channel until it clears or until you tell it to do something else.